

Petition for Extension of Time Under 37 CFR 1.136(a)

It is hereby requested that the term to respond to the Non-final Office Action dated February 25, 2008 be extended two months, from May 25, 2008 to July 25, 2008.

REMARKS

The Commissioner is hereby authorized to charge any additional fees associated with this communication to Deposit Account No. 50-4364.

The Office rejected claims 77-79, 81-87, and 89-92 under 35 U.S.C. 103(a) as being unpatentable over Alonso et al. (U.S. Patent No. 6,184,878) in view of Debey (U.S. Patent No. 5,701,582) and in further view of Huizer et al (U.S. Patent No. 6,751,802). The Office also rejected claims 80 and 88 under 35 U.S.C. 103(a) as being unpatentable over Alonso in view of Debey and Huizer as applied to the claims above and further in view of Hooper et al (U.S. Patent No. 5,422,674).

These rejections rely largely on the same art as the rejections set forth in the previous Office Action, which Applicant traversed. At least one of the arguments asserted by Applicant was that, contrary to the Office's assertions, Bleidt did not teach a multiplexer as claimed in the present application. The Office has responded to that argument in the latest Office Action, arguing that Bleidt does show multiplexing as claimed insofar as Bleidt discloses Time Division Multiplexing (TDM).

Applicant recognizes that TDM is a form of multiplexing. However, TDM is a different type of multiplexing than the type used in the present application. Particularly,

in the present invention, slots within a frame created by the data multiplexers 360A-360X (see Figure 3) are assigned to objects of a presentation data stream in accordance with a hierarchy that maximizes the use of the system bandwidth.

Particularly, the required control and network information data is inserted into each frame. Then, transmit timing information such as a PCR is inserted. Next, constant data rate data, such as audio data is transmitted at a constant data rate. For instance, monaural audio data may be transmitted in one slot per frame and stereo audio data may be transmitted in two slots per frame. Finally, variable data rate data such as video and/or auxiliary data is inserted, throttling as required to maintain synchronization between audio and video.

Accordingly, in one sense, one may consider the insertion into the stream of constant data rate data, such as MPEG audio data, to be somewhat similar to time division multiplexing. However, the other types of data, particularly the variable data rate data, are inserted into the frames at variable data rates depending on (1) availability of slots in the frames after the other data has been inserted and (2) user demand. See, for instance, page 25, lines 16-23, page 45, line 23 - page 47, line 32, page 52, line 30 – page 53, line 9, and page 60, line 33 – page 61, line 12 of the present specification.

Furthermore, it should be noted that, in the present invention, the multiplexing discussed above is performed at the data level, whereas, in Huizer, the multiplexing upon which the Office is relying is performed at the transport stream level.

Applicant has herein amended claims to more clearly recite these distinctions.

Particularly, with reference to Figure 3 and page 45, line 6 - page 47, line 32, page 52, line 5 - page 53, line 9, and page 60, line 33 - page 61, line 12, there are two multiplexing levels in the ROC, namely, data level multiplexing (i.e., multiplexers 360A-360X) and transport level multiplexing (i.e., TS multiplexer 365). As described in the above-cited sections of the specification, most notably page 60, line 33 - page 61, line 12, the system achieves efficient use of available channel capacity. The control, video, audio, and graphics data are combined into a data stream by the data multiplexers 360A-360X and input into the transport level multiplexer 365 to be further multiplexed with other such encoded data streams for transmission.

The independent claims 77 and 85 now recite both multiplexing steps. Furthermore, newly added dependent claims 93-102 recite features that further distinguish over the prior art. For instance, dependent claims 93 and 98 depend from claims 77 and 85, respectively, and recite that the constant data rate data, such as audio data, is transmitted at a constant data rate. Dependent claims 95 and 100 depend from claims 93 and 98, respectively, and further add that the variable data rate data, such as video data, is transmitted at a variable data rate.

Claim 97 depends from claim 96, which depends from claim 93, which depends from claim 77, and recites the order in which various types of data objects are inserted into a frame in the data stream.

Claim 102 depends from claim 101, which depends from claim 98, which depends from claim 85, and recites that the various types of data objects are inserted into a frame in the data stream in a hierarchical order.

The prior art of record does not teach these features. Particularly, as the Office expressly discusses in the rejection, Alonso and Bleidt teach a different kind of multiplexing, namely, time division multiplexing. Also, Huizer discloses multiplexing in the transport stream layer, i.e., multiplexing multiple VOD presentations into a transport stream, which is not related to the multiplex in various data objects of a single presentation discussed above.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. Applicant respectfully requests the Examiner to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

July 25, 2008

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